

### **REMARKS**

Claims 1-14, and 16-18 are now pending in the application. Claims 19-35 are new. Support for the foregoing amendments can be found throughout the specification, drawings, and claims as originally filed. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

### **DOUBLE PATENTING**

Claims 9, 10, 11, 12, and 13 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5, 6, 7, 8, and 9 of copending Application No. 10/721,213. Applicant notes these provisional rejections are provisional, and will respond when and if the rejections are finalized.

### **REJECTION UNDER 35 U.S.C. § 102**

Claims 1-7, 9, 12-14, and 17-18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Bertin et al. (U.S. Pat. No. 6,400,681 B1). This rejection is respectfully traversed.

Applicant has reviewed the cited reference and respectfully traverses the rejection as Bertin does not disclose each and every limitation of independent claim 1. In particular, Bertin does not disclose a connection controller that is coupled to receive the requested traffic pattern and the network topology data, compute an actual traffic pattern for the packet and communicate the actual traffic pattern to a source

corresponding to the packet such that the network operates as a strictly non-interfering network.

Claim 1 is directed to a network that includes a master subnet manager that provides network topology data, a requested traffic pattern for a packet and a connection controller that computes an actual traffic pattern such that the network operates as a strictly non-interfering network. As defined in Applicant's Specification "a strictly non-interfering network" is a network for which "the only queuing delays experienced by an admissible traffic pattern are attributable to the multiplexing of packets from slow links onto a faster link whose aggregate bandwidth at least equals the sum of the bandwidths of the smaller links. In a [strictly non-interfering network], competing traffic sources do not attempt to use the same network resources at the same time. The implementation of a [strictly non-interfering network] requires that resources be dedicated through the network in support of an active communication session. In order to accomplish this, non-blocking networks can be used." Applicant's specification, Page 5 Lines 5-11. Applicant respectfully submits that the Examiner not given sufficient weight to the relevance of the claimed network operating as a strictly non-interfering network, as described in the specification and reiterated in the response filed on October 11, 2007 and herein as well.

Bertin is at best directed to a high speed packet switching network for minimizing the time to establish a connection between an origin and a destination node. A path calculated at the time the connection is requested is recorded in a Routing Database and updated each time a modification occurs in the network. Alternate paths for supporting non-disruptive path switch on failure or preemption, and new paths towards

potential destination nodes can be calculated and stored when the connection set up process is idle.

The Examiner asserts that Bertin, Col. 11, Lines 53-65 anticipates a network operating as a strictly non-interfering network. Applicant traverses this interpretation of Bertin. Bertin, Col. 11, Lines 53 - 63 at best appears directed to a bandwidth reservation processes and to link metric update process updates. Neither bandwidth reservation processes or the link metric update process updates anticipate, teach, or suggest the claimed strictly non-interfering network. As a reminder to the Examiner, "a strictly non-interfering network" is a network that "the only queuing delays experienced by an admissible traffic pattern are attributable to the multiplexing of packets from slow links onto a faster link whose aggregate bandwidth at least equals the sum of the bandwidths of the smaller links. In a [strictly non-interfering network], competing traffic sources do not attempt to use the same network resources at the same time. The implementation of a [strictly non-interfering network] requires that resources be dedicated through the network in support of an active communication session. In order to accomplish this, non-blocking networks can be used." Applicant's specification, Page 5 Lines 5-11.

Applicant respectfully requests that the Examiner clarify how Bertin anticipates, or teaches or suggests, the elements of the strictly non-interfering network as defined in the subject application and reiterated in the previous and current responses. Neither reserving bandwidth nor updating the link metric update process updates provides a network for which the only queuing delays experienced by an admissible traffic pattern are attributable to the multiplexing of packets from slow links onto a faster link whose

aggregate bandwidth at least equals the sum of the bandwidths of the smaller links. Likewise, Neither reserving bandwidth nor updating the link metric update process upgrades provides a network where competing traffic sources do not attempt to use the same network resources at the same time.

Also in the Office Action, the Examiner responds to Applicant's arguments made in the response filed on October 11, 2007. Applicant respectfully traverses the Examiner's conclusions. In particular, in the outstanding Office Actions, Pages 15-16, the Examiner asserts that "Bertin discloses that for each connection request, the system selects a pre-calculated path satisfying said connection requesting the routing database. However, If no pre-calculated path is found, the system calculates a path that satisfying [sic] said connection request. (Bertin: line 63 column 5 through line 1 column 6). Bertin further discloses that during the path selection/calculation process, all the information is collected and an Equivalent Capacity of the new network connection is calculated. Potential paths through the network from the origin to the destination node(s) are computed. The path selection/calculation process constructs new potential paths, adds links and nodes on a hop-by-hop basis, and checks at each stage that the user requirement are being met (Bertin: lines 1-9, column 12)."

Assuming that even if the Examiner's observation about the alleged teachings of Bertin are correct, Applicant respectfully submits that no portion of the above assertion by the Examiner addresses the claimed network operating as a strictly non-interfering network. Nothing in the above observed by the Examiner addresses the specific criteria of a non-interfering network as described in Applicant's Specification and reiterated in the response filed on October 11, 2007 and herein as well. Providing a path differs

substantially from providing the claimed network operating as a strictly non-interfering network. Bertin fails to anticipate, teach, or suggest that the path meets the criteria of a strictly-non-interfering network.

The Examiner further asserts in the Office Action, Page 16 that "the Path Selection process is to determine the best way to allocate network resources to connection both to guarantee that user quality of service requirements are satisfied and also to optimized [sic] the overall throughput of the network. The process must supply to the requesting user a path over the network over which a point-to-point connection will be established, and some bandwidth will be reserved if needed." Applicant respectfully submits that even if the Examiner's observation about the teachings of Bertin are correct, Applicant respectfully submits that no portion of the above assertion by the Examiner addresses the claimed network operating as a strictly non-interfering network. Providing a path differs substantially from providing the claimed network operating as a strictly non-interfering network. Bertin fails to anticipate, teach, or suggest that the path and or the bandwidth reserved meets the criteria of a strictly-non-interfering network.

FIG. 1 generally describes the call set up process developed by Bertin. The call set up process includes a "Path Selection process that a path and a set of connection request, one for each link of the path, using parameters provided by the Topology Database." Nothing about the Path Selection process disclosed describes a process that creates a strictly non-interfering network as required by the claim and defined by the Applicant. The citation to FIG. 7 does not overcome this shortcoming. FIG. 7 together with FIGs. 8-11 also does not disclose the claimed strictly non-interfering

network. FIG. 7 specifically states that the search path procedure ends if no path to a specific destination node can be found. FIG. 8 discloses a path computation procedure when no path to a specific destination node can be found, but in the process a link in other paths may no longer be operational. See column 19, lines 10-16. The descriptions of the Store Path Procedure, Alternate Path Computation Procedure, Potential Path Computation Procedure and Path Recomputation Procedure do not disclose that the network includes a connection controller that uses the network topology data to form a strictly non-interfering network. None of the procedures disclosed by Bertin meet the criteria required for the claimed strictly non-interfering network as defined by Applicant.

In view of the foregoing, Applicant submits that claims 1, 9, and 14 define over the art cited by the Examiner. Likewise, claims 2-7, 12-13, and 17-18, which depend from respective claims 1, 9, and 14, define over the art cited by the Examiner.

#### **REJECTION UNDER 35 U.S.C. § 103**

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bertin et al. (U.S. Pat. No. 6,400,681 B1) in view of Brahmaroutu (U.S. Pub. No. 2003/0033427 A1). Claim 8, 10, and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bertin et al. (U.S. Pat. No. 6,400,681 B1) in view of Yang (U.S. Pat. No. 5,940,389). These rejections are respectfully traversed.

Applicant respectfully submits that the arguments made above with respect to Bertin apply equally hereto. Further, Applicant respectfully submits that the combination of Bertin with Brahmaroutu or Yang fails to cure the deficiencies of Bertin noted above.

Thus, Applicant respectfully submits that claims 8, 10-11, and 16 define over the art cited by the Examiner.

#### **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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By: /Joseph M. Lafata/  
Joseph M. Lafata, Reg. No. 37,166

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600

JML/PFD/evm/jo